

wherein M is Zr, Hf or Ti;

B' C₅H₄ (C₅H_{4-x}R_x) is a cyclopentadienyl ring which is substituted with from zero to four substituent groups R, "x" is 0, 1, 2, 3, or 4 denoting the degree of substitution, and each substituent group R is, independently, a radical selected from a group consisting of C₁-C₂₀ hydrocarbyl radicals, substituted C₁-C₂₀ hydrocarbyl radicals wherein one or more hydrogen atoms is replaced by a halogen atom, C₁-C₂₀ hydrocarbyl-substituted metalloid radicals wherein the metalloid is selected from the Group IV A of the Periodic Table of Elements, and halogen radicals or (C₅H_{4-x}R_x) is a cyclopentadienyl ring in which two adjacent R-groups are joined forming C₄-C₂₀ ring to give a saturated or unsaturated polycyclic cyclopentadienyl ligand;

(JR'_{z-2}) is a heteroatom ligand in which J is an element with a coordination number of three from Group V A or an element with a coordination number of two from Group VI A of the Periodic Table of Elements, and each R' is, independently a radical selected from a group consisting of C₁-C₂₀ hydrocarbyl radicals, substituted C₁-C₂₀ hydrocarbyl radicals wherein one or more hydrogen atoms is replaced by a halogen atom, and "z" is the coordination number of the element J;

each Q is, independently any univalent anionic ligand or two Q's are a divalent anionic chelating ligand;

T is a covalent bridging group containing a Group IV A or V A element; and

L is a Lewis base where "w" denotes a number from 0 to 3; and

(b) an alumoxane.

19. (new) The process of claim 18 wherein the heteroatom ligand group J element is nitrogen, phosphorous, oxygen or sulfur.

20. (new) The process of claim 18 wherein Q is a halogen or hydrocarbyl radical.

21. (new) The process of claim 19 wherein the heteroatom ligand group J element is nitrogen.

22. (new) The process of claim 18 wherein M is zirconium or hafnium.

23. (new) The process of claim 18 wherein M is titanium.